REMARKS

Reconsideration and allowance of the present application are respectfully requested. Claims 2-6, 8-15 and 17-19 remain pending in the application. Because there was no claim 21 ever filed, previously filed claims 22-24, which were originally misnumbered, have been renumbered as "claims 21-23". Claims 1, 7, 16 and 20 have been canceled, and replaced with new claims 24-27. New claims 28-29 have also been added.

On page 2 of the Office Action, the specification is objected to as failing to disclose "a ring encompassing a toothed place" as recited in claim 9. This objection is respectfully traversed, as the claims constitute a part of the specification, and the recited claim language, although not appearing verbatim, is clearly supported by the exemplary embodiments described herein. To address the Examiner's concerns that this exact phrase does not appear in the specification, paragraph [0056] on specification page 24 has been amended to include the language of original claim 9. In addition, claim 9 has been amended to replace the phrase "a toothed place" with the phrase "an eversion" of the original description. This term appears, for example, in the description of Figure 9 at specification page 24, in paragraph [0056]. Accordingly, withdrawal of the objection to the specification is requested. Similarly, withdrawal of the rejection of claim 9 under 35 U.S.C. §112, first paragraph, on page 3 of the Office Action, for similar reasons, is respectfully requested.

In the second paragraph on page 2 of the Office Action, the drawings are objected to as failing to show reference number "30E" disclosed on specification page 20, paragraph

[0047], line 9. The drawings are also objected to because the "mutual spacing" of claims 12 and 23 (originally mislabeled as claim "24") is allegedly not shown.

The reference "30E" on specification page 20 should be "30°", this error having occurred as a result of a glitch in a word processor program. Accordingly, page 20, paragraph [0047] has been amended to address this typographical error. Similar typographical errors in paragraph [0015] were also addressed. Regarding the "mutual spacing" language in claims 12 and 23, amendments have been proposed to clarify that the mutual spacing is between denticulations, and does not correspond to the space between the walls of the heat exchanger as suggested by the Examiner. The mutual spacing referred to in claims 12 and 24 refers to a distance between connecting points; i.e., a grid distance as described on specification pages 11-12 in paragraph [0021]. Paragraph [0045] on specification pages 18-19 also describes that connections are disposed in a square grid, and specification page 20, paragraph [0047] describes compression-molded connections forming a triangular grid. Specification page 22, paragraph [0052] describes "indentations are disposed in a rectangular grid, spaced 25 mm apart, and have a diameter of 8 mm". The drawings show mutual spacing of connection points in, for example, in each of Figures 2-8. In light of the foregoing comments and amendments to the specification, withdrawal of the objections to the drawings is respectfully requested.

In the last paragraph on page 3 of the Office Action, claims 12 and 23 (originally mislabeled claim "24") are rejected under 35 U.S.C. §112, second paragraph based on the "mutual spacing" language already discussed. Because the "mutual spacing" of these

claims has been addressed by the foregoing comments and amendments to claims 12 and 23, withdrawal of this rejection is respectfully requested.

On page 4 of the Office Action, claims 1, 2 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese document 56-091942A (Takahashi). On page 5 of the Office Action, claims 1, 3-4, 7-8, 10, 13-14, 16 and 20-21 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,378,604 (Feind et al). On page 6 of the Office Action, claims 11 and 22-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over the Takahashi document in view of U.S. Patent No. 4,248,210 (Ortega). In the last paragraph on page 6 of the Office Action, claims 1, 5 and 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,292,958 (Lee) in view of the Takahashi document.

These rejections are respectfully traversed. None of the documents relied upon by the Examiner, considered individually or in the various combinations relied upon, teach or suggest Applicant's invention as set forth in independent claims 24-29.

Applicant notes with appreciation the Examiner's indication that independent claim 15 has been allowed. The remaining independent claims 1, 7, 16 and 20, as previously presented, have been canceled and new claims 24-27 submitted in their place. Independent claim 15 recites, among other features, a compression molding method for punctate fastening of walls in a heat exchanger. Such features have been added to each of independent claims 24-27, such that these claims are considered allowable for reasons similar to those acknowledged by the Examiner with respect to claim 15.

In addition to independent claims 24-27, new independent claim 28 has been submitted and is considered allowable over the documents relied upon by the Examiner. Claim 28 recites among other features, sheet metal walls of a heat exchanger which are mutually fastened using annular denticulations located on plural connecting points. Annular denticulations are described, for example, at specification pages 17-19 in paragraphs [0042] to [0043] with reference to Figure 1.

In contrast, the Takahashi document is directed to a solar water heat exchanger having walls joined along longitudinal lines between two flow-through chambers. However, the Takahashi patent does not teach or suggest punctate deformation of material as described in Applicant's specification at paragraph [0009] to form annular denticulations. For example, Figure 2 of the Takahashi document illustrates a heat exchanger wherein longitudinal connection lines are illustrated. Figure 2 illustrates that in the forming process, a semi-circular shape, as opposed to a semi-spherical shape, is used for joining walls of the heat exchanger. As such, this patent does not teach or suggest features of Applicant's newly proposed independent claim 28 which, among other features, recites annular denticulations for joining sheet metal walls of a heat exchanger.

The Feind patent is directed to a heat exchanger formed using PVC or CPVC walls, and is not directed to compression molding of sheet metal walls to join the walls together. At best, Figures 19-22 in the Feind patent are described at column 8, beginning with line 59, as using snap-together alignment lugs. The walls of the plastic heat exchanger in Feind

are therefore not joined using the annular denticulations of the sheet metal walls recited in claim 28.

The remaining documents to Ortega and Lee relied upon by the Examiner in the Office Action do not overcome the deficiencies of the Takahashi and Feind documents. As such, claim 28 is considered allowable over the documents relied upon by the Examiner in the Office Action.

All of the remaining claims depend from the independent claims, and recite additional features considered further allowable.

All rejections and objections raised in the Office Action having been addressed, it is respectfully submitted that all of the pending claims are in condition for allowance. However, should there be any remaining questions, it is respectfully requested that the undersigned be contacted at the number shown below.

Respectfully submitted,

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